

3. **Service Control Point (SCP)** — A node in the signaling network to which information requests for service handling, *e.g.*, routing, are directed and processed. The SCP contains service logic and customer-specific information required to process individual requests.
 - B. **Advanced Intelligent Network (AIN)** — AIN is as defined in Section __ of the Agreement, and includes, without limitation, access to all data bases used to manage AIN capabilities, database management capabilities, customer access capabilities and network elements utilized to access AIN data bases for call processing control functions.
 - C. **Number Portability Data Bases** — include all data bases used to manage Number Portability, including database management capabilities, and network elements utilized to access Number Portability data bases for call processing control functions.
 - D. **Assorted Other Databases** — Includes without limitation, CRIS, ITORP, Installation/Order Processing Databases, Local Calling Area Databases, Operational Support Systems Database, CMAS, Number Assignment Database, Emergency Services Databases, Toll Free Database, etc.
 - E. **Line Information Data Base (LIDB)** — The function of providing information contained in the LIDB, including the identification of aggregator lines, correctional facility lines, etc.
 - F. **Operational Support Systems.**
- V. **ANCILLARY SERVICES** — provides for certain activities available to support other network components or services.
- A. **Operator Services** — The function of providing a number of live or mechanized assistance functions to aid customers in the following ways: providing explanatory information to callers who dial numbers that have been changed or disconnected (intercept); providing assistance to customers in completing operator-handled toll or local calls (collect, calling-card, third-party or station-to-station or person-to-person); checking busy lines to make sure the line is not out of service (busy verification); and interrupting busy lines in emergency call situation (busy interruption). These operator services are provided to end-use customers, as well as exchange and interexchange carriers.
 - B. **911 and E-911 Services** — The function of providing answering and emergency services connection for emergency calls placed by dialing "911."

- C. **Directory Assistance**—The function of providing oral directory information to callers who dial "411," "555-1212," or a similar dialing protocol to obtain directory number, street address listings, new listings or similar information.
- D. **Measurement and Recording**—The measurement and recording of call at the switch and the function of assembling, collating and transmitting end office switch, or serving wire center, recorded call data to be processed for billing.
- E. **Billing and Collection**—The function of compiling the information needed for customer billing, preparing bill statement, disbursing the bill and collecting the customer payment (includes any collection activity required for late payment or non-payment of billing amounts due).
- F. **Directory Access**—Nondiscriminatory access of CLEC customers to ILEC white and yellow pages directories, as well as the guide and information pages contained therein.

DECLARATION OF WARREN LISS

I, Warren Liss, depose and state as follows:

1. I am Vice President of Consulting Services with Lightwave Spectrum International, Inc. (LSII). LSII provides fiber optic network development and strategic planning and consulting services to the telecommunications industry, both in the United States and internationally. I manage LSII's Engineering Department as well as its consulting services. Prior to joining LSII in 1987, I held various positions in the telecommunications industry over a span of 25 years, including the development of virtual networks, calling card, and 800 services for MCI and the development of local switch hardware and software with Bell Laboratories.

2. LSII generally, and I personally, have worked closely with American Communications Services, Inc. ("ACSI") to design and construct competitive local networks across the nation. ACSI already has announced plans to construct local fiber-optic-based telecommunications networks in 20 cities, and more are on the drawing board. ACSI currently is offering dedicated telecommunications services in 11 of these localities, and plans to introduce a host of switched service offerings later this year. I have been personally and deeply involved in designing these networks, as well as in the development of an ACSI strategic plan for competing with incumbent local exchange carriers ("ILECs") to attract and retain local exchange service customers in an economic fashion. I have personally been involved on ACSI's behalf as a member of the negotiating team with the ILECs.

3. Interconnection with the ILECs is critical to the ACSI business plan.

Obviously, it is not feasible for ACSI to completely replicate the ILEC networks in the ACSI service areas in the foreseeable future. Instead, ACSI will focus on building its own fiber optic, SONET-based backbone rings (with attendant local and tandem switches) and building distribution and feeder facilities on a selective basis. ACSI will be dependent on the ability to purchase the remaining local network service elements from the ILECs and upon mutual traffic exchange arrangements with the ILECs to serve its customers efficiently. Without access to critical components of the ILEC network, ACSI would be unable to serve most customers and will effectively be prevented from competing as a local exchange carrier.

4. ACSI has made formal requests for interconnection under the Telecommunications Act of 1996 to BellSouth, SBC, US West, GTE and Sprint/Central. In each case, ACSI made a detailed request that included a proposal for interconnection, mutual traffic exchange, access to unbundled network elements and service resale.

5. As part of its interconnection proposal, and in meetings held with the ILECs on the issue, ACSI has made clear its desire to obtain access to unbundled components of the local loop. Speaking generally, we have asked that each discrete component of the local loop be unbundled and offered separately. The principal such components include loop distribution, loop feeder, and all of the electronic and optical components, such as Subscriber Loop Carrier systems ("SLCs"), Digital Loop Carrier systems ("DLCs"), Remote Terminals ("RTs"), remote concentrators and remote switches, as well as other loop plant elements that may be deployed by the ILECs now or in the future.

6. To date, none of the ILECs has agreed to unbundle the loop elements as requested in ACSI's proposed interconnection agreement. Each has stated that they regard such unbundling as being not technically or administratively feasible. The ILECs' proposals are limited to a fully bundled loop with its complete set of elements, accessible only at the MDF. As a result of these discussions, I developed a list of specific unbundled elements which are technically feasible and simple to administer. These are among those described in the following paragraphs. The ILECs have so far refused our requests for these elements.

7. The following sections describe specific network elements which ACSI has requested from the ILECs. This is not intended to be a comprehensive list, and the descriptions are generic. It represents only a sample of the network elements which are components of typical Local Exchange Carrier ("LEC") loop plant. Each of the formulations could be provided in a variety of different ways depending on the specific network configurations in place on a given route.

a. **Analog Loop at MDF.** (See Figure A attached hereto.) This is the simplest architecture, and the one commonly made available in ILEC tariffs which are resultant of state PUC proceedings on the topic. The ILEC would simply make available an integrated local loop extending from the demarcation point on the customer premises to the ILEC's Main Distribution Frame (MDF). All of the ILECs contacted have plans to offer access to the entire loop as a bundled entity in this fashion. While this could be a useful element to ACSI, the pricing proposed by the ILECs appears to preclude its economic use in most cases.

b. **Extended Analog Loop at MDF.** (See Figure B.) ACSI has asked for interconnection at the network side of the SLC, which would allow it to use the ILEC's loop distribution and SLC, but to avoid payment for ILEC switching and trunk-side transport, which ACSI would provide itself. Some of the ILECs have agreed in principal to offer access to loops served by SLCs, but only in bundled form and only at the MDF. The ILECs' "offer" is further limited to those cases where the outmoded analog form of SLC interface with the local switch is used. Again, the pricing proposed by the ILECS appears to preclude the use of this form of bundled loop in most cases.

c. **TR008 - Digital Loop Carrier (DLC) at MDF.** (See Figure C.) The ILECs have made extensive use of DLC technology in their loop plant during the last decade. A standardized interface, TR008, provides a cost effective and technically superior digital connection with the local switch interface. ACSI has requested digital interconnection with TR008 compatible equipment, both at the MDF, as illustrated in Figure C, and at its point of deployment (see following paragraph). Although ACSI switches will meet the TR008 standards and are as capable as ILEC switches of DS1 interconnection with DLCs, the ILECs have stated that they do not intend to offer this type of interconnection.

d. **TR008 - Digital Loop Carrier (DLC) at Remote Site.** (See Figure D.) ACSI will be able to make very efficient use of unbundled DLCs at remote sites, using ACSI optical fiber network facilities to interconnect ILEC-provided unbundled DLCs with ACSI switches. This would enable ACSI to lease the ILEC DLC already in service, but avoid paying for unneeded ILEC feeder and distribution facilities. The ILECs have stated that they

regard this form of interconnection as being not feasible technically or administratively, although this form of interconnection is identical to that used by the ILECs for themselves.

e. **TR303 Compatible Equipment in Central Office.** (See Figure E.)

The evolution of the ILEC network to the new TR303 interface standard is well documented. TR303 provides standard interfaces between local switching systems of the type used by ACSI and the ILECs and a variety of transmission systems and remote terminal equipment under Synchronous Optical Network ("SONET") standards. The Central Office Terminal ("COT"), used as a hub in most TR303 implementations, is a natural point of interconnection, at the DS1 level, as illustrated in Figure E, and potentially at higher rates (*e.g.*, DS3, STS-1, OC3 or OC12). ACSI has requested this form of interconnection. The ILECs have stated that they regard this form of interconnection as being not feasible technically or administratively, although the standards for TR303 interconnection are well known and this requested form of interconnection is identical to that planned by the ILECs for themselves.

f. **TR303-Compatible Equipment at Remote Terminals.** (See Figure F.)

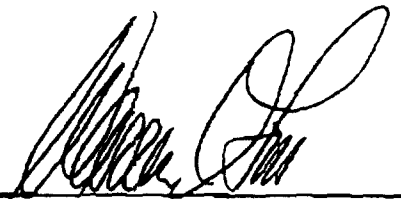
ACSI will be able to make very efficient use of unbundled TR303 equipment at remote sites, using ACSI optical fiber network facilities to interconnect ILEC-provided unbundled RTs with ACSI switches. Under this proposed configuration, ACSI would lease a partitioned portion of the RT and self-supply transport facilities from the RT to the ACSI backbone. This option enables a CLEC to utilize a portion of the ILEC RT while avoiding payment for unneeded or unwanted ILEC feeder and distribution facilities. The ILECs have stated that they regard this form of interconnection as being not feasible technically or administratively,

although, as with the previously discussed configuration, the standards for TR303 interconnection are well known and this requested form of interconnection is identical to that planned by the ILECs for themselves.

8. There is no significant technical impediment to the ILECs providing unbundled local loops in any of the fashions which I have outlined in paragraphs 7a - f above. Although interconnection will usually require a physical cross-connection, the cross-connection is unexceptional and can normally be accomplished relatively simply and easily by any competent technician. Thus, the refusal of ILECs to honor ACSI's repeated requests for these types of interconnection seemingly is a matter of ILEC corporate policy and strategic objectives, not technical feasibility.

9. The availability of local loops which are unbundled down to the SLC, DLC and RT level is critical to the accomplishment of the ACSI network plan for switched services. The availability of these network configurations will enable ACSI to interconnect at the point at which it can most efficiently serve customer needs and, correspondingly, most effectively compete with the ILEC for local service traffic. By contrast, unavailability of such options will perpetuate the current ILEC monopoly over the local loop, and condemn competitors to transit bottleneck ILEC loop facilities indefinitely. In my view, this circumstance would indefinitely delay, if not completely forestall, true facilities-based local services competition.

Under penalty of perjury, I hereby declare that the foregoing is true and correct to the best of my information and belief as of May 16, 1996, the date of this Declaration.



Warren Liss

Figure A: Analog Loop at MDF

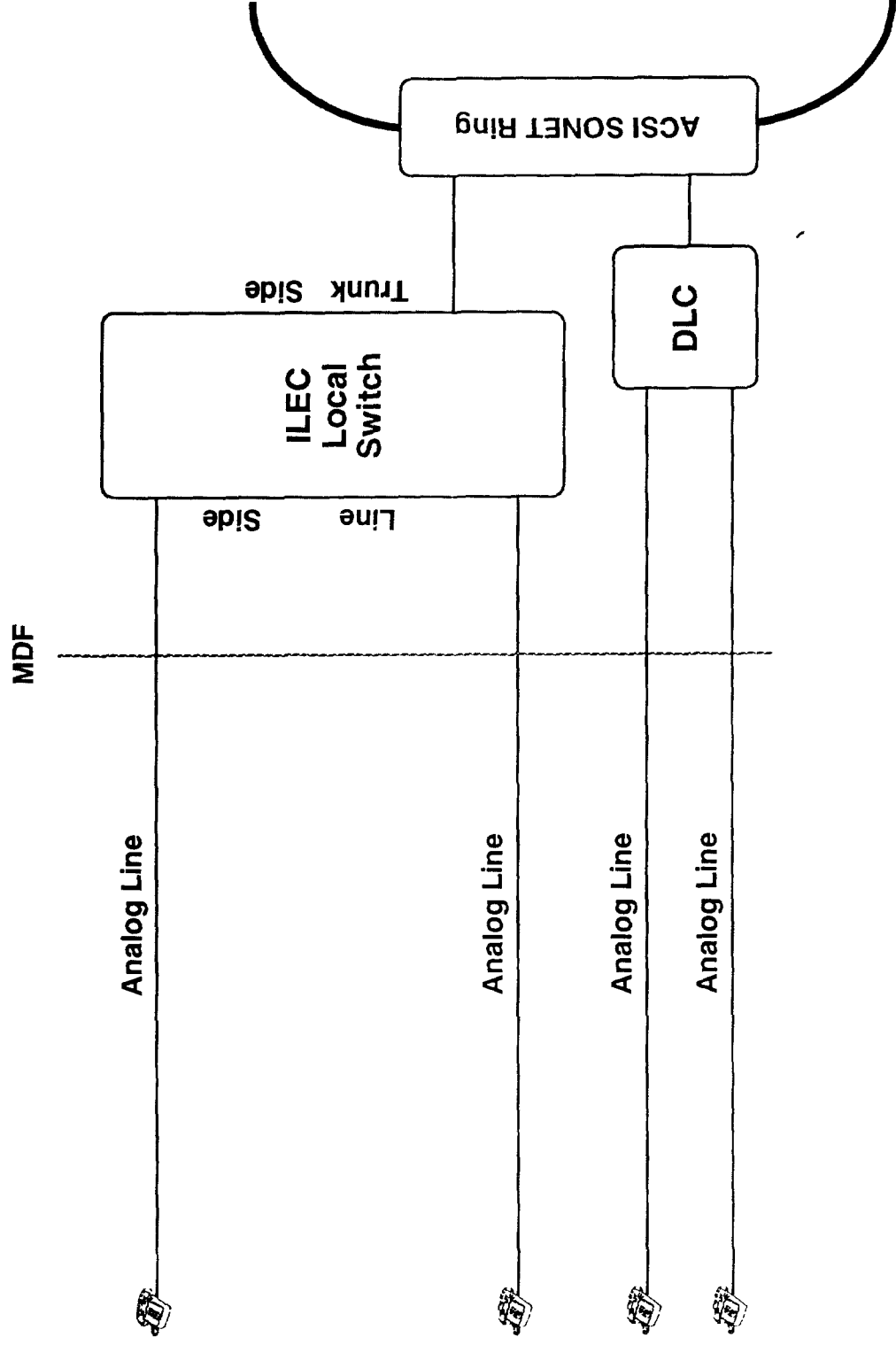


Figure B: Extended Analog Loop at MDF

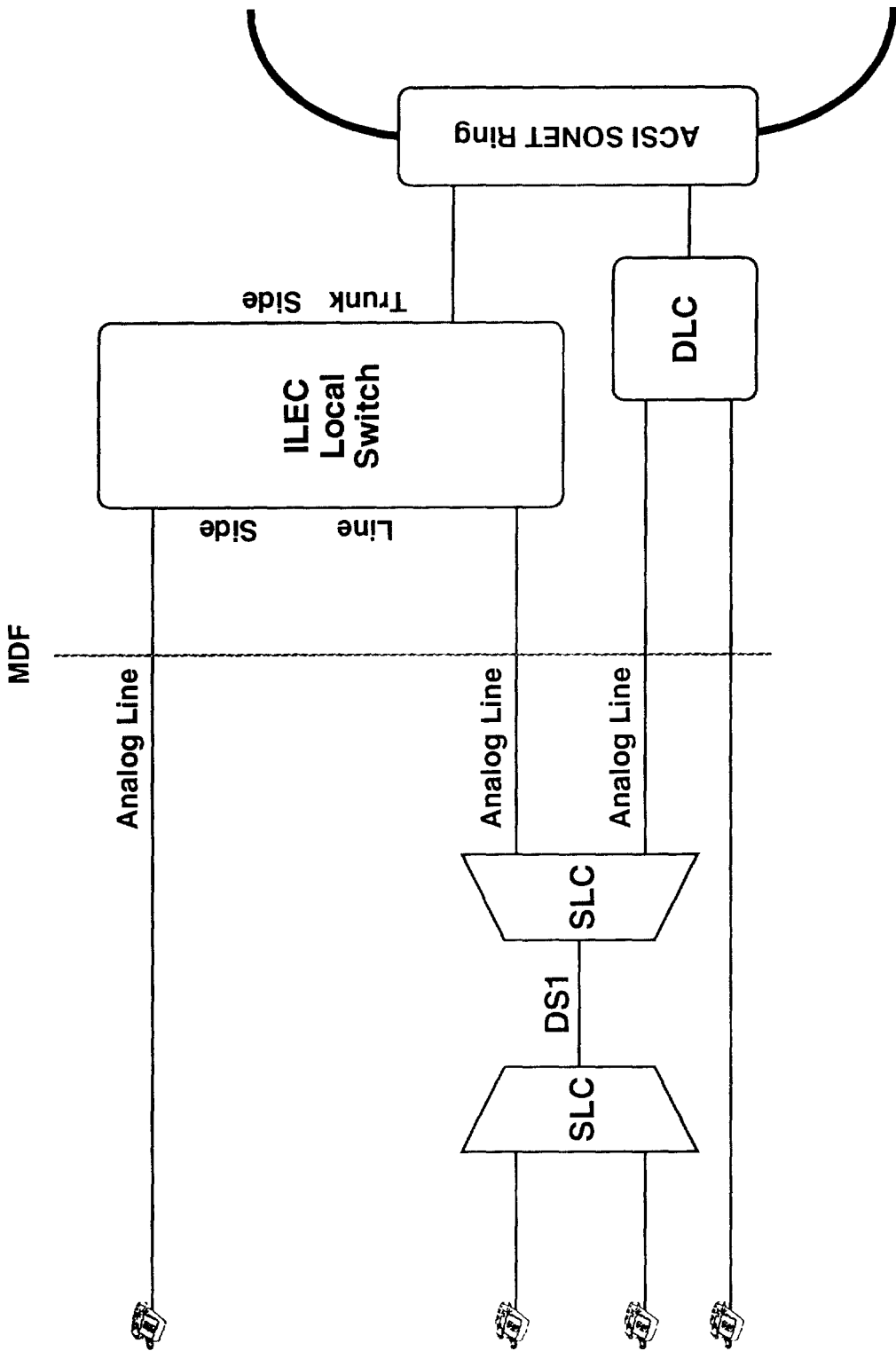


Figure C: Digital Loop Carrier (TR008) at MDF

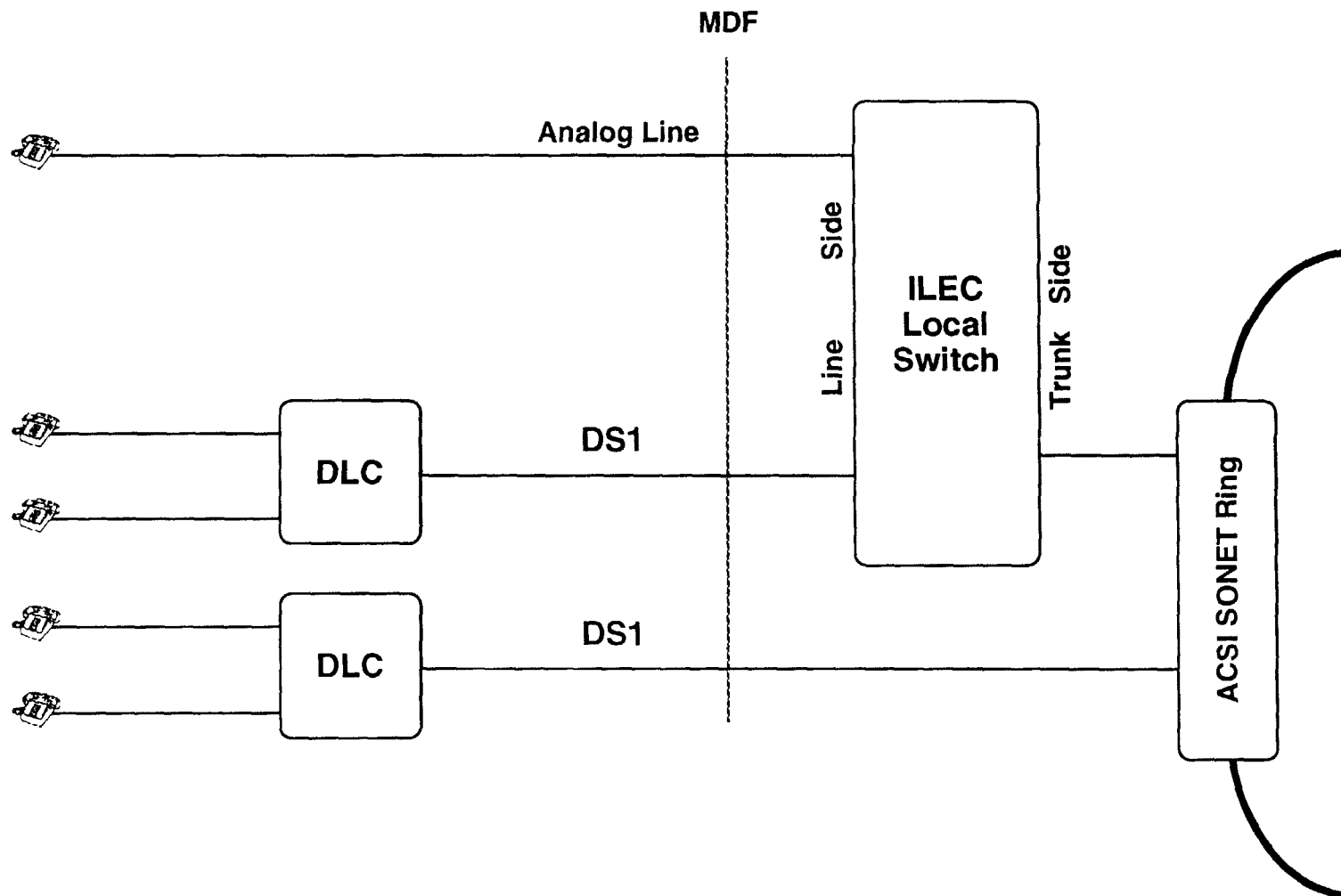


Figure D: Digital Loop Carrier (TR008) at Remote Site

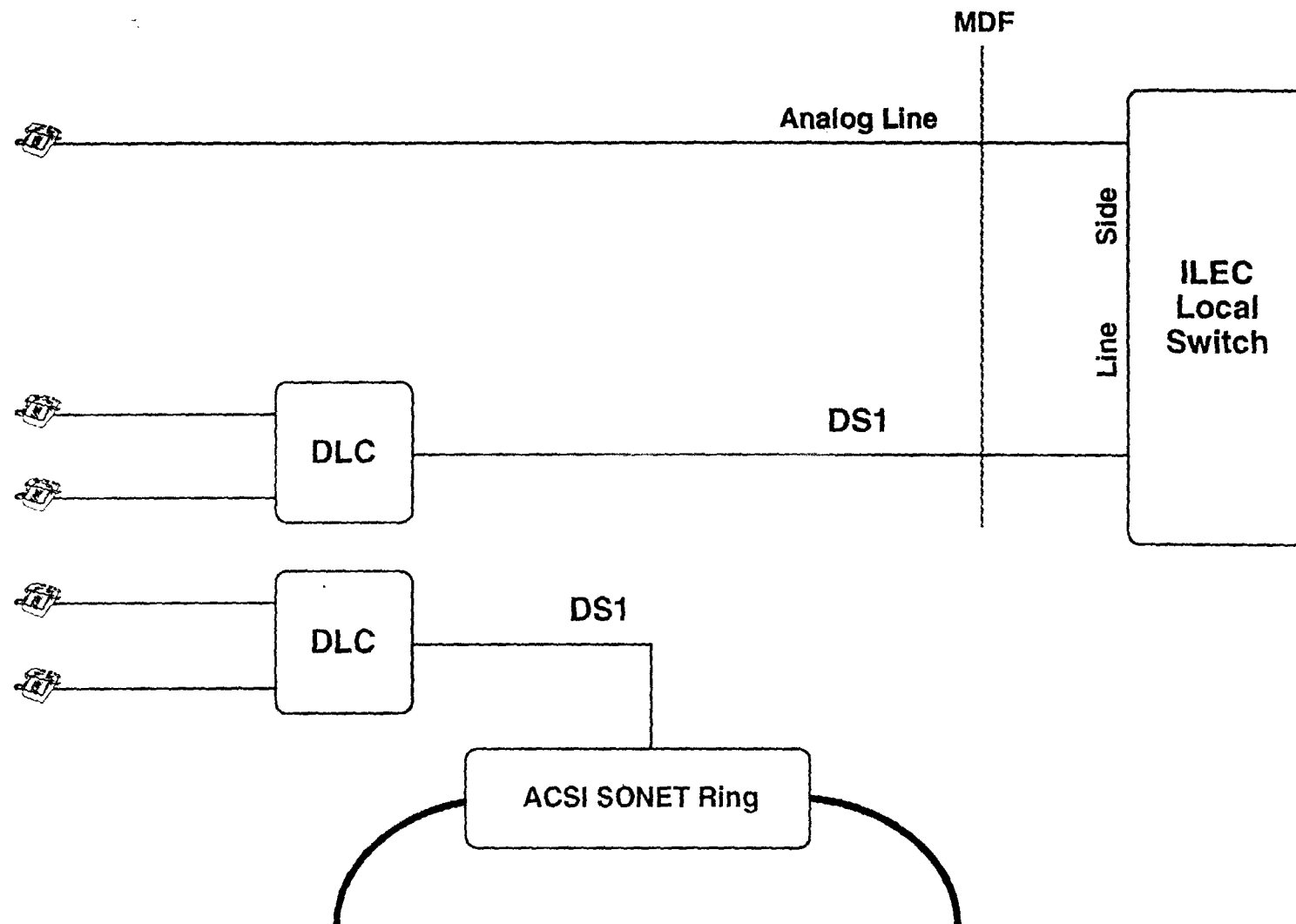


Figure E: TR303 Interconnection at Central Office Terminal (COT)

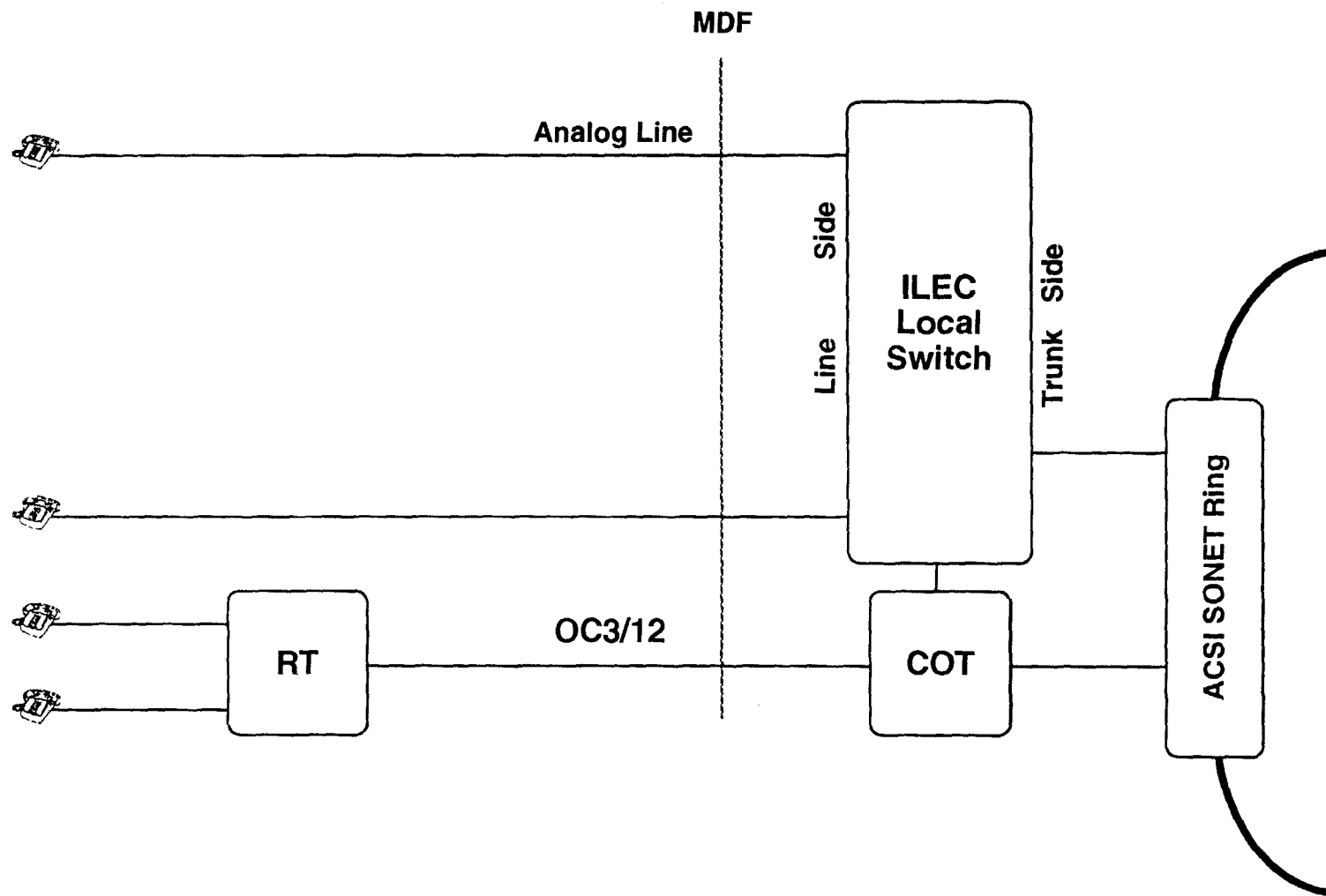
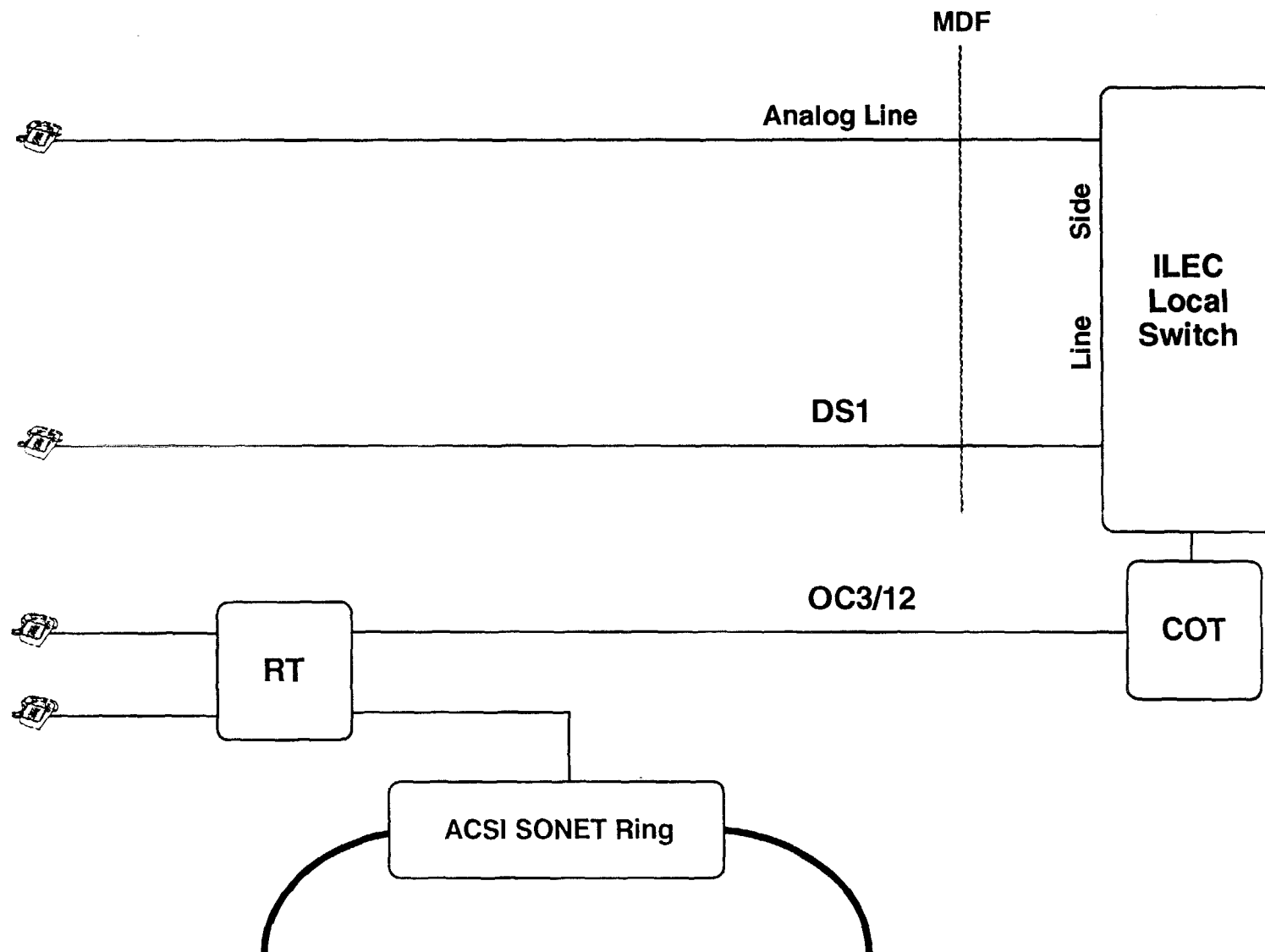


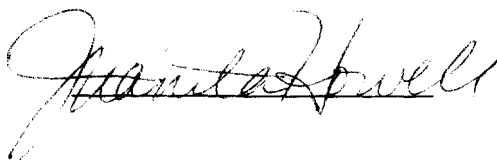
Figure F: TR303 Interconnection at Remote Terminal (RT)



CERTIFICATE OF SERVICE

I do hereby certify that on this 16th day of May, 1996, a true and correct copy of the foregoing *Comments of American Communications Services, Inc.* was served via hand delivery to:

Janice Miles
1919 M Street, NW
Room 54
Washington, DC 20036

A handwritten signature in cursive script, appearing to read "Janice Miles", written over a horizontal line.